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Sinofsky

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[54] PHOTOREACTIVE SUTURING OF BIOLOGICAL MATERIALS

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[58] Field of Search 606/10, 11, 12, 13-17, 606/213-216, 219, 220; 128/395-398; 604/304, 305, 306, 289, 290

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[57] ABSTRACT

Materials and methods for photoreactive suturing of biological tissue are disclosed. The suture material includes a structure adapted for positioning at an anastomotic site and has at least a portion of the structure formed by a photoreactive crosslinking agent, such that upon irradiation of the structure the crosslinking agent adheres to the biological material. In one embodiment, the suture material can also include a high tensile strength element which is coated with a laser activatable crosslinking agent or glue. The suture methods can be practiced manually, or with various apparatus, such as endoscopes, catheters or hand-held instruments.

8 Claims, 5 Drawing Sheets

